

In the Claims:

Please amend claims 1, 5, 7 and 11 as follows:

1. (Currently Amended) An inter-network relay storage apparatus for distributing data between a plurality of independent network environments, comprising:

a storage unit having a data area for storing files to be transferred between said networks in file units, on a file-by-file basis, and a file management table to indicate the access status to said file, said file management table storing the areas of disk space that are currently in use on a file-by-file basis; and

a data management unit for performing control between file systems for each one of said networks using said file management table, and

wherein said data management unit comprises:

a first data management unit connected to one network of said plurality of independent networks and for accessing said data area; and

a second data management unit connected to another network of said plurality of independent networks and for accessing said data area,

wherein said first and second data management units set an indication to indicate that a file is in use in said file management table before reading or writing said file in said data area, and reset said in use indication in said file management table after reading or writing said file in said data area to control file transfer between said networks.

2. (Original) The inter-network relay storage apparatus according to Claim 1, wherein said data management unit is disposed in a pair of network servers which are connected to said networks respectively.

3. (Original) The inter-network relay storage apparatus according to Claim 1, further comprising a pair of network connection servers having said data management unit respectively, and are connected to said networks respectively, and communicate data via said networks.

4. (Canceled)

5. (Currently Amended) ~~The inter-network relay storage apparatus according to Claim 1,~~An inter-network relay storage apparatus for distributing data between a plurality of independent network environments, comprising:

a storage unit having a data area for storing files to be transferred between said networks in file units, on a file-by-file basis, and a file management table to indicate the access status to said file; and

a data management unit for performing control between file systems for each one of said networks using said file management table, and

wherein said data management unit comprises:

a first data management unit connected to one network of said plurality of independent networks and for accessing said data area; and

a second data management unit connected to another network of said plurality of independent networks and for accessing said data area,

wherein said first and second data management units set an indication to indicate that a file is in use in said file management table before reading or writing said file in said data area, and reset said in use indication in said file management table after reading or writing said file in said data area to control file transfer between said networks,

wherein said data area of said storage unit comprises:

a first area which is only written by one file system of a plurality of file systems and read by another file system of the plurality of file systems; and

a second area which is only written by said another file system and read by said one file system.

6. (Previously Presented) The inter-network relay storage apparatus according to Claim 3, wherein at least one of said network connection servers comprises:

a network control section for connecting with said network for communication; and

said data management unit.

7. (Currently Amended) An inter-network relay method for distributing data between a plurality of independent network environments, comprising the steps of:

performing control between file systems using a file management table configured to store the areas of disk space that are currently in use on a file-by-file basis, said file management table located in a storage apparatus to indicate the access status to a file in the storage apparatus by said file system for one network of said plurality of independent network environments; and

writing and reading said file in file units, on a file-by-file basis, to/from a data area in said storage apparatus during said control, and relaying data between said one network and another network of said plurality of independent network environments by said file system for said another network,

wherein said performing the control step comprises:

a step of setting an indication to show that a file is in use in said file management table before reading or writing said file in said data area by one of a first data management unit connected to said one network of said plurality of independent networks and for accessing said data area and a second data management unit connected to said another network of said plurality of independent networks and for accessing said data area; and

a step of resetting said in use indication in said file management table after reading or writing said file in said data area by one of said first and second data management units.

8. (Original) The inter-network relay method according to Claim 7, wherein said file system is disposed in a pair of network servers which are connected to said networks respectively.

9. (Previously Presented) The inter-network relay method according to Claim 7, further comprising a step of connecting to said networks respectively by a pair of network connection servers, and executing said data relay in file units, on a file-by-file basis, according to the request from said networks.

10. (Canceled)

11. (Currently Amended) ~~The inter-network relay method according to Claim 7,~~An inter-network relay method for distributing data between a plurality of independent network environments, comprising the steps of:

performing control between file systems using a file management table in a storage apparatus to indicate the access status to a file in the storage apparatus by said file system for one network of said plurality of independent network environments; and

writing and reading said file in file units, on a file-by-file basis, to/from a data area in said storage apparatus during said control, and relaying data between said one network and another network of said plurality of independent network environments by said file system for said another network,

wherein said performing the control step comprises:

a step of setting an indication to show that a file is in use in said file management table before reading or writing said file in said data area by one of a first data management unit connected to said one network of said plurality of independent networks and for accessing said data area and a second data management unit connected to said another network of said plurality of independent networks and for accessing said data area; and

a step of resetting said in use indication in said file management table after reading or writing said file in said data area by one of said first and second data management units,

wherein said data relay step comprises:

a step of writing only to a first area of said storage apparatus from one file system of said plurality of file systems and reading from said first area to another file system of said plurality of file systems; and

a step of writing only to a second area of said storage apparatus from said another file system and reading from said second area to said one file system.

12. (Previously Presented) The inter-network relay method according to Claim 9, further comprising a step of issuing a data relay request to one of the network connection servers, each server connected to said network by a service system of said network.

13. (Previously Presented) The inter-network relay storage apparatus according to Claim 1, wherein said data management table comprises a file use control table for storing use indication flags of each file for each file system.

14. (Previously Presented) The inter-network relay method according to claim 7, wherein said performing the control step comprises a step of setting and resetting said indication to use indication flags of each file for each file system in said data management table.